

furthest to  $1\frac{1}{2}'''$ . Although Vogt describes this annelide as new, it appears to be identical with *Chætogaster*, Von Baer (Beiträge zur Kenntniss der niederen Thiere, tab. 2.). Von Baer also found his *Chætogaster* parasitic on freshwater mollusca; not on *Ancylus* it is true, but on *Limnæus*, *Planorbis*, and *Physa*. In size, colour and form it agrees perfectly with the *Matzia*, and from the description and figure there cannot be the slightest doubt as to the identity of both animals. I have also found in the neighbourhood of Berlin, in the mantle-cavity of young specimens of *Planorbis communis*, an annelide which agrees exactly with Vogt's representation of the *Matzia heterodactyla*. The latter name must be abandoned, and that of *Chætogaster*, being the oldest, adopted.

With respect to the more accurate relations of affinity of this genus, the spiny feet affixed to the flesh-hooks, and the mode of propagation by means of gemmation and division, connect it with the *Naiades*, from which however it differs in the absence of eyes. It is most nearly allied to *Acleosoma* and *Pristina*, Ehrenb. (Symbol. Phys. Evert.).

## BIBLIOGRAPHICAL NOTICES.

*Annales des Sciences Naturelles.*

Feb. 1843.—*Zoology*.—The remainder of M. Joly's very valuable paper on *Caridina Desmarestii*. Among the results of his research are the following important conclusions: the *Caridina* quits the egg under a different form from that which it presents when adult, wanting many organs which afterwards are fully developed. The changes which it undergoes are *true metamorphoses*, much more complete metamorphoses than those presented by Orthopterous, Hemipterous, and some Neuropterous insects. A comparison of M. Joly's observations with those of J. V. Thompson and Capt. Du Cane leads him to conclude, that almost all, if not all, Decapodous Crustacea exhibit similar transformations.—Dr. Martins on *Arvicola nivalis*, a new species from the region of perpetual snow in the Swiss Alps.—Andral and Gavaret on Respiration.—A translation of Mr. Bowman's admirable memoir on the structure and use of the Malpighian bodies of the kidneys.

*Botany*.—Dr. Montagne's descriptions of Exotic *Cellulares*, continued.—M. Nageli on Fungi living in the interior of vegetable cells (from the 'Linnæa'), with a good plate.—Professor Morren on the movements and anatomy of the labellum of *Megaclinium falcatum* (extracted from the 15th vol. of the new memoirs of the Brussels Academy).—Spach's monograph of the genus *Amygdalus*. Out of seventeen species thirteen are inhabitants of Asia only, one of Europe only, one common to Europe and Asia, and two doubtful. Nine of these are new. M. Spach also enumerates seven dubious species.

March.—*Zoology*.—M. Leon Dufour on the Liver of Insects. A long and important paper with excellent plates.—M. Quatrefages

on a new kind of Phosphorescence observed in certain Annelides and *Ophiuræ*. The author shows that the light in these cases proceeded from the muscular tissues of the animals.

*Botany*.—On the growth of *Pinus sylvestris* in the north of Europe, by MM. Bravais and Ch. Martins.—Monograph of the genus *Ebenus*, by Count Jaubert and Ed. Spach. Of the species described two are European, seven Asiatic and one African. Seven out of the total ten are new. There is appended a description of a new genus, *Ebenidium*, intermediate between *Ebenus* and *Anthyllis*. *Ebenidium lagopus*, a plant from Southern Persia, is the only species.—Remarks on the anatomical structure of *Melocactus*, by F. A. W. Miquel (translated from the ‘Linnæa’).—A revision of the species of *Chamærrhodos*, by Prof. Bunge.—On the genus *Hypochæris*, by E. Regel (from the ‘Linnæa’).—A translation of M. Gæppart’s memoir on the ligneous knots in *Abies pectinata*.

April.—*Zoology*.—A translation of Siebold’s paper on the organ of Hearing in the Mollusca.—M. d’Orbigny on the comparative normal position of Bivalve Mollusca. The opinions expressed in this paper are rather fanciful than important.—A translation of Prof. Owen’s great memoir on the *Myiodon*.

*Botany*.—Note on *Cambium*, by MM. Mirbel and Payen.—M. Mohl’s researches on the Cuticle of Plants (from the ‘Linnæa’).—Dr. Lévillé on Fungi of the neighbourhood of Paris.—Count Jaubert and M. Spach on the Oriental species of *Leobordea*.—Dr. Montagne’s Fourth Century of new Exotic *Cellulares*.

May.—*Zoology*.—General Considerations on the Palæontology of South America, compared with European Palæontology, by M. Alcide d’Orbigny. A very interesting paper by a naturalist, whose works promise to rescue the palæontology of the Invertebrata from the obscurity which pervades it, in consequence of having remained so long in the hands of persons whose knowledge was geological rather than zoological. Among the conclusions drawn by M. d’Orbigny from the facts on which this paper is founded, are the following: 1st, that “beings, taken as a whole, have, following the chronological order of faunæ characteristic of formations, progressed in America as in Europe from simple to complicated.” [This conclusion will hardly bear criticism.] 2ndly, no transition being evident among specific forms, beings appear to have succeeded each other on the surface of the earth, not by *passage*, but by extinction of existing races and by the creation of new species at each geological epoch: 3rdly, animals are divided into zones according to geological epochs, each of which represents a distinct fauna having the same palæontological aspect and composed of the same generic forms both in Europe and America, and also containing certain species common to both: 4thly, M. d’Orbigny regards such a state of things as indicating, among the older formations, a uniformity of temperature and a general shallowness of the seas: 5thly, after the cretaceous æra the influence of climate commences, consequent on the diminution of the internal heat of the globe; uniformity of distribution disappears, and local faunæ are multiplied.—Memoir on the *Eolidina paradoxum*, Quat., by M. A. de Quatrefages (with a fine en-

graving). The following is the character of the genus *Eolidina*: "Four tentacula; eyes at the base of the posterior tentacula; branchiæ arranged symmetrically in transverse rows on each side of the median line; *anus posterior, dorsal*; genital orifice on the right side, a little in advance of the posterior tentacula; foot large, enlarged in front, extending beyond the body behind." "*Species, E. paradoxum*. Superior legs slightly prominent; anus very small; genital orifice not very evident; two reddish-brown eyes; anterior tentacula twice as large as the posterior; colour variable (pale orange or gray). Length ten to twelve millimetres. Inhabits coasts of Normandy under stones at low-water." The author describes its anatomy and physiology at length, and concludes by a consideration of its zoological relations. This is a memoir of very great interest, and should be carefully perused by every British malacologist.—An extract from a work by M. Matteucci on animal electricity.

*Botany*.—M. Gustave Thuret on the locomotive organs of the spores of Algæ. By the employment of opium and iodine the author has been enabled to arrest and examine the ciliary organs which cause the spores to move. Of these organs he distinguishes four types. The most simple is seen among the Confervæ, in which the extremity of the spore, unprovided with endochrome, forms a rostrum, bearing two cilia or filiform tentacula, slightly exceeding it in length. The motions of these spores recall those of the animalculæ which are found in the anthers of *Chara*. Light affects them. There is a rose-coloured point near the rostrum like that seen in certain Infusoria. A second form of spore is seen in *Chatophora elegans*, the spores of which are provided with four cilia. A third type is met with among the *Prolifera*, in which the spores are oval, with a rounded rostrum bearing a crown of filiform tentacula. A fourth is seen in *Vaucheria*, in which the spore is an ovoid vesicle entirely clothed with cilia. M. Thuret gives an interesting account of the germination of the spores, confirming the observations of Unger, and shows that many species of *Vaucheria* are varieties of one form. Good plates accompany this paper.—*Monographia Lycoperdineorum*, by Dr. Vittadino (in the Turin 'Transactions').—Monograph of the genus *Spartium*, by M. Spach. Ten species are enumerated, of which nine are African (mostly from the Canaries) and one common to Africa and Asia.—*Observationes in Acanthaceis Horti Vratislaviensis*, by Nees ab Esenbeck (from the 'Linnæa').—Karelin and Kirilow on new genera of Russian plants (from the 'Bulletin' of the Moscow Society).—Description of *Zamia Loddigesii* (*Z. serrulata*, Catal. Loddig. n. 1841), by M. Miquel.—Baron Melicocq on the vegetation of the banks of the Meuse.—Review of M. Holandre's 'Flora of the Moselle.'

June.—*Zoology*.—M. Kolliker on the seminal fluid of Crustacea and Cirrhipeda (translated from the author's essay published in German).—Extract from the memoir by MM. Dumas, Boussingault and Payen, on the Origin of Fat.—Huber's paper on the larva of a *Lyda* (see 'Annals,' May 1843).—M. Costa on the integuments of *Synaptæ*.

*Botany*.—M. A. Steinheil (the late) on opposite leaves which become alternate by union.—Arendt on the capillary action of hairs (from the 'Flora').—M. Desmazières on Cryptogamia new to France.—M. Tulasne on French *Lycoperdaceæ*.

July.—*Zoology*.—M. Serres on the human allantoid.—M. d'Orbigny on the Gasteropoda of the Cretaceous system. Of 325 species found in the cretaceous strata of France, 250 are new. Out of the total, 81 species belong to the Neocomian (the lowest portion of the Lower Greensand) and 9 to the "Aptien," which two divisions form together the "Étage Néocomien" of D'Orbigny, a name equivalent to the Lower Greensand of Dr. Fitton. To the "Albien," *i. e.* the Gault, belong 77 species; to the "Turonien," *i. e.* Upper Greensand, 134; and to the "Senonien," *i. e.* white chalk, 24. Each geological group is marked by an assemblage of peculiar species. The new names given by M. d'Orbigny to the groups will appear to most geologists useless and inconvenient: it is a relic of an old, but very bad habit of French naturalists.—Experimental researches on Inanition, by Dr. Chossat.

*Botany*.—M. Mirbel on the anatomy of the Date-Palm.—M. Gaudichaud's reply to M. Mirbel.—M. A. Meyer on the *Daphnaceæ* (from the 'Bulletin' of the Moscow Academy).—M. Bojer on new plants from the South African Islands.—M. Schrenk on new *Chenopodiaceæ* and *Staticeæ* (from the 'Bulletin' of the Moscow Academy).

Aug.—*Zoology*.—M. Matteucci on muscular electricity, 2nd part.—M. Bischoff on the detachment and fecundation of the human egg and of the eggs of Mammalia.—Physiological studies on menstruation, by M. Raciborsky.—M. Lereboullet on the *Ligidium Persoonii* of Brandt. With plates.

*Botany*.—Note on the distinctive characters which separate vegetables from animals, and on mineral secretions in plants, by M. Payen. The author, by chemical analysis, comes to the same conclusions which M. Decaisne arrived at by organographical research, viz. that *Coralina officinalis*, *Halimeda*, *Opuntia* and their allies are vegetables and true Algæ.—Dr. Montagne on the tribe of *Podaxineæ*, and on *Gyrophragmium*, a new genus of that tribe.—Conspectus generis *Gaillonia*, by Count Jaubert and M. E. Spach.—On some new plants of Abyssinia, by M. Raffineau Delile.—M. Bojer's descriptions of rare plants from the islands of Southern Africa.—Prof. Bernhardt on the metamorphosis of plants (from the 'Flora' of 1843).

## PROCEEDINGS OF LEARNED SOCIETIES.

### ZOOLOGICAL SOCIETY.

Dec. 27, 1842 (*continued*).—Richard Owen, Esq., Vice-President, in the Chair.

Mr. Fraser exhibited a specimen of the *Galago Senegalensis*, procured at Cape Coast, Western Africa, and a new species of Shrew from Fernando Po, which he characterized as follows:—

SOREX (CROCIDURA) POENSIS. *Sor. obscure fuscus, corpore subtùs*